AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (currently amended) Diagnosis method for monitoring the available resources in a production process with supply links, which comprise in particular production plants and/or service providers,

-      in which components are supplied by a number of supply links ~~(2, 2',~~ ~~4)~~ to a system provider [[(3)]], which puts these components together to form a system,

-      in which any number of supply links ~~(2, 2', 4)~~ are situated in relation to one another in an interconnected supply chain [[(5)]], so that they are in turn supplied by other supply links ~~(2, 2', 4)~~,

-      each supply link ~~(2, 2', 4)~~ having an input buffer ~~(10, 10')~~, an output buffer ~~(11, 11')~~ and a process stage ~~(12, 12')~~, the diagnosis method comprising the steps

-      that firstly an identification number is determined for each supply stage ~~(2, 2', 4)~~ on the basis of the design of its buffers ~~(10, 10', 11, 11')~~ and its process stage ~~(12, 12')~~,

-      that information concerning the predicted demands of the system provider [[(3)]] in their time sequence is made available by the system provider [[(3)]] continually over time to each supply link ~~(2, 2', 4)~~,

-      that information concerning the momentary stock of its buffers ~~(10, 10', 11, 11')~~ is supplied continually over time by each supply link ~~(2, 2', 4)~~,

-      that the identification numbers of the supply links ~~(2, 2', 4)~~ are used to determine continually over time whether their momentary buffer stocks ~~(10, 10', 11, 11')~~ satisfy the predicted demands of the system provider [[(3)]],

-      and that the results of this assessment are made available continually over time to the supply links ~~(2, 2', 4)~~.

2.   (currently amended)   Diagnosis method according to Claim 1, ~~characterized in that~~ wherein the identification number of a supply link ~~(2, 2', 4)~~ is determined by this supply link ~~(2, 2', 4)~~ itself.

3.   (currently amended)   Diagnosis method according to Claim 1, ~~characterized in that~~ wherein the results of this assessment are made available to the supply links ~~(2, 2', 4)~~ in the form of a traffic-light function.

4.   (currently amended)   Diagnosis method according to Claim 1, ~~characterized in that~~ wherein a range [[(T)]], which is a measure of the time period over which the supply link ~~(2, 2', 4)~~ is capable of balancing out demand fluctuations of the system provider [[(3)]], is chosen as the identification number for the determination of the supply capability of the supply link ~~(2, 2', 4)~~.

5.   (currently amended)   Diagnosis method according to Claim 1, ~~characterized in that~~ wherein a lead time δ, which corresponds to the time interval between the input buffer ~~(10, 10')~~ or output buffer ~~(11, 11')~~ of the supply link ~~(2, 2')~~ and the input buffer ~~(10")~~ of the system provider [[(3)]], is determined for each supply link ~~(2, 2')~~.

6.   (currently amended)   Diagnosis method according to Claim 1, ~~characterized in that~~ wherein an interpreter list, which contains the reference of the intermediates produced by the particular supply link ~~(2, 2')~~ to the end product of the system provider [[(3)]], is created for each supply link ~~(2, 2')~~.

7.   (currently amended)   Diagnosis system for monitoring the available resources in a production process,

-      a network [[(1)]] of supply links (2, 2', 4) which supply to a system provider [[(3)]] being involved in the production process,

-      each supply link ~~(2, 2', 4)~~ having an input buffer ~~(10, 10')~~, an output buffer ~~(11, 11')~~ and a process stage ~~(12, 12')~~,

-      and any number of the supply links ~~(2, 2', 4)~~ being situated in relation to one another in an interconnected supply chain [[(5)]],

-      the diagnosis system [[(13)]]

-      replicating the interconnection of the supply links ~~(2, 2', 4)~~ with respect to one another,

- and also containing data concerning predicted demands of the system provider [[(3)]] and also identification numbers and data concerning momentary buffer stocks (10, 10', 11, 11') of all the supply links (2, 2', 4),

- and it being possible for the data contained in the diagnosis system [[(13)]] to be called up by the system provider [[(3)]] and all the supply links (2, 2', 4).

8.   (currently amended)   Diagnosis system according to Claim 7, characterized in that wherein the diagnosis system [[(13)]] is accessible to the supply links (2, 2', 4) via the Internet.

9.   (new)   A diagnosis method for monitoring available resources in a production process, the production process including a system provider and a plurality of supply links that supply components to the system provider for assembly into a system, the supply links being placed in an interconnected supply chain, each supply link having an input buffer, an output buffer and a process stage, the diagnosis method comprising:

providing an identification number for each supply link on the basis of the design of its buffers and its process stage;

the system provider providing to each supply link information concerning the predicted demands of the system provider as a function of time;

each supply link providing information concerning the momentary stock of the supply link's buffers;

determining whether each supply link's momentary buffer stocks satisfies the predicted demands of the system provider, using the identification number of the supply link; and

providing to the supply links the results of determining whether each supply link's momentary buffer stocks satisfies the predicted demands of the system provider.

10.   (new)   The diagnosis method according to Claim 9, wherein each supply link determines its own identification number.

11.   (new)   The diagnosis method according to Claim 9, wherein providing to the supply links, in the form of a traffic-light function, the results of determining whether each

supply link's momentary buffer stocks satisfies the predicted demands of the system provider.

12.   (new) The diagnosis method according to Claim 9, wherein each supply link's identification number is a range, which is a measure of the time period over which the supply link is capable of balancing out demand fluctuations of the system provider.

13.   (new) The diagnosis method according to Claim 9, wherein determining a lead time (δ) for each supply link, which lead time corresponds to a time interval between the input buffer or output buffer of the supply link and the input buffer of the system provider.

14.   (new) The diagnosis method according to Claim 9, wherein creating an interpreter list for each supply link, which list links intermediary products produced by the supply link to an end product of the system provider.

15.   (new) A diagnosis system for monitoring the available resources in a production process that includes:

a system provider;

a network of supply links which supply to the system provider, each supply link including:

an input buffer,

an output buffer, and

a process stage; and

a supply chain including a number of the interconnected supply links,

the diagnosis system comprising:

a replication of the interconnection of the supply links;

data concerning predicted demands of the system provider;

identification numbers for the supply links; and

data concerning momentary buffer stocks of the supply links, wherein the data contained in the diagnosis system are accessible by the system provider and the supply links.

16.   (new) The diagnosis system according to Claim 15, wherein the diagnosis system is accessible to the supply links via the Internet.